**TAPEH-75-AL1**

tert.Amylperoxy-2-ethyl hexanoate

CAS#686-31-7

75%, solution in odorless mineral spirits

**Structural Formula**

\[
\begin{array}{c}
\text{CH}_3 \\
\text{CH}_3 \\
\text{CH}_2 \text{C}-\text{O}-\text{O}-\text{C}-\text{C}-\text{CH}_2 \text{CH}_2 \text{CH}_2 \text{CH}_2 \text{CH}_2 \text{CH}_3 \\
\text{C}_2\text{H}_5 \\
\end{array}
\]

**Description**

Colorless, mobile liquid, consisting of ca. 75 % w/w tert.Amylperoxy-2-ethyl hexanoate, desensitized with high boiling aliphatic hydrocarbons. This branched, aliphatic perester is used as an initiator (radical source) in the polymerization of monomers.

**Technical Data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless, mobile liquid</td>
</tr>
<tr>
<td>Assay</td>
<td>ca. 75 % w/w</td>
</tr>
<tr>
<td>Active oxygen</td>
<td>ca. 5.2 % w/w</td>
</tr>
<tr>
<td>De-sensitising agent</td>
<td>Aliphatics (b.p. &gt; 170°C)</td>
</tr>
<tr>
<td>Density at 20°C</td>
<td>ca. 0.857 g/cm³</td>
</tr>
<tr>
<td>Viscosity at 20°C</td>
<td>ca. 4.3 mPa·s</td>
</tr>
<tr>
<td>Refractive index at 20°C</td>
<td>ca. 1.429</td>
</tr>
<tr>
<td>Critical temperature (SADT)</td>
<td>ca. 40°C</td>
</tr>
<tr>
<td>Cold storage stability</td>
<td>To below -25°C</td>
</tr>
<tr>
<td>Recommended storage temperature</td>
<td>Below 10°C</td>
</tr>
<tr>
<td>Maximum transport temperature</td>
<td>20°C</td>
</tr>
<tr>
<td>Maintenance of activity at 10°C</td>
<td>3 months</td>
</tr>
</tbody>
</table>

**Half-life Data**

Half-life time: 10h/1h/1min (0.1 m / benzene): 72°C/91°C/130°C

**Application**

**ETHYLENE:**
Initiator for the high-pressure polymerization of ethylene in combination with other peroxides of different thermal stability. Temperature range: 160-210°C. Particular advantages: liquid, readily miscible with high-boiling aliphatics, highly efficient.

**STYRENE:**
Initiator for the bulk or suspension polymerization. Temperature range: 80-110°C. Usage level: 0.1-0.5% as supplied. Particular advantages: free from plasticizer,
liquid, therefore easy to dose, high activity. A low residual monomer content can be achieved in combination with other, thermally more stable peroxides.

OTHER MONOMERS:
Initiator for the polymerization of (meth-) acrylates and allyl-monomers. Temperature range: 80-120°C. Usage level: 0.1-1% as supplied. In combination with thermally more stable peroxides the residual monomer content in the polymer can be reduced.

Storage
Observe the recommended storage temperature range to preserve quality and usefulness and for safety reasons. Observe the safety recommendations of local regulations and codes, requirements of the local authority having jurisdiction, and your insurance provider.

Standard Packaging
This product is packed in 20 Liter Jerricans filled to 35 pounds net weight. Standard Pallet quantities are 1050 pounds (30 containers).

Safety & Handling
See our Safety Data Sheet for details. This material is highly hazardous and self-reactive. Avoid heating to above maximum recommended storage temperatures and confinement. Store and handle in ways evaluated by a thorough safety review following process safety management techniques.

REACH
This material is registered under REACH.

Disclaimer
This information and all further technical advice are reflecting our present knowledge and experience based on internal tests with local raw materials with the purpose to inform about our products and applications. The information should not be construed as guaranteeing specific properties of products described or their suitability for a particular application, nor as providing complete instructions for use. The information implies no guarantee for product and shelf life properties, nor any liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. We reserve the right to make any changes according to technological progress or further developments.

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